

SERVICE  
MANUAL

# PM340/PM240

**marantz®**

model PM340/PM240

*Stereo Pre Main Amplifier*

## MARANTZ DESIGN AND SERVICE

Using superior design and selected high grade components, MARANTZ company has created the ultimate in stereo sound. Only **original MARANTZ parts** can insure that your MARANTZ product will continue to perform to the specifications for which it is famous.

Parts for your MARANTZ equipment are generally available to our National Marantz Subsidiary or Agent.

### ORDERING PARTS:

Parts can be ordered either by mail or by telex. In both cases, MARANTZ part number has to be specified. If you order by mail, fulfil MARANTZ order forms.

MARANTZ S.A.  
EUROPEAN PARTS DEPARTMENT  
2, Avenue Léopold III  
B-7120 PERONNES-lez-BINCHE  
BELGIUM  
TWX: 57589 SEPLT B

The following information must be supplied to eliminate delays in processing your order:

1. Complete address
2. Complete part numbers and quantities required
3. Description of parts
4. Model number for which part is required
5. Way of shipment
6. Signature: any order form or telex must be signed otherwise such part order will be considered as null and void.

### PARTS ORDERING:

Parts may be ordered from the following addresses:

#### EUROPE

##### MARANTZ S.A.

European Parts Department  
2, Avenue Léopold III  
B-7120 Péronnes-lez-Binche  
Belgium  
Telex: 57589

##### MARANTZ DENMARK

Bregnerødvej 132b  
3460 Birkerød  
Denmark  
Telex: 39137

##### MARANTZ BELGIUM

45 Rue Auguste Van Zande  
1080 Brussels  
Belgium

##### MARANTZ NEDERLAND B.V.

Wagenmackersweg 3  
3449 H.V. Woerden  
Netherlands

##### MARANTZ S.A.

326 Avenue Louise Bte 32  
1050 Bruxelles  
Belgium  
Telex: 26602

##### MARANTZ FRANCE

4 Rue Bernard Palissy  
92600 Asnières  
France  
Telex: 611651

##### MARANTZ SVENSKA A.B.

Svartviksvägen 56  
Traneberg Bromma  
Sweden  
Telex: 13449

##### MARANTZ ITALIANA S.p.A.

Via Monte Napoleone, 10  
20121 Milano  
Italy

##### MARANTZ GERMANY G.M.B.H.

Max-Planckstrasse 22  
6072 Dreieich 1  
Germany  
Telex: 4185316

##### MARANTZ AUDIO U.K. LTD.

Unit 15/16  
Saxon Way Industrial Estate  
Moor Lane  
Harmondsworth UB7 0LW  
Great Britain  
Telex: 935196

##### MARANTZ AUSTRIA Ge.M.B.H.

25 Franz Lisztgasse  
2380 Perchtoldsdorf  
Austria  
Telex: 113583

#### AUSTRALIA

##### MARANTZ AUSTRALIA PTY., LTD.

19 Chard Road  
Brookvale, NSW 2100  
Australia  
Telex: 24121

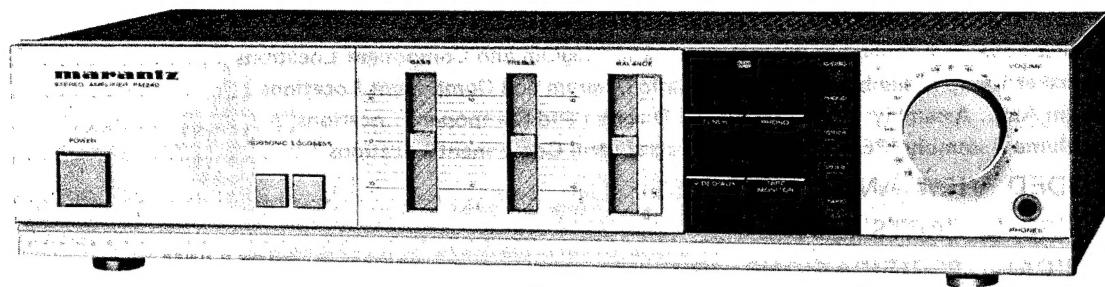
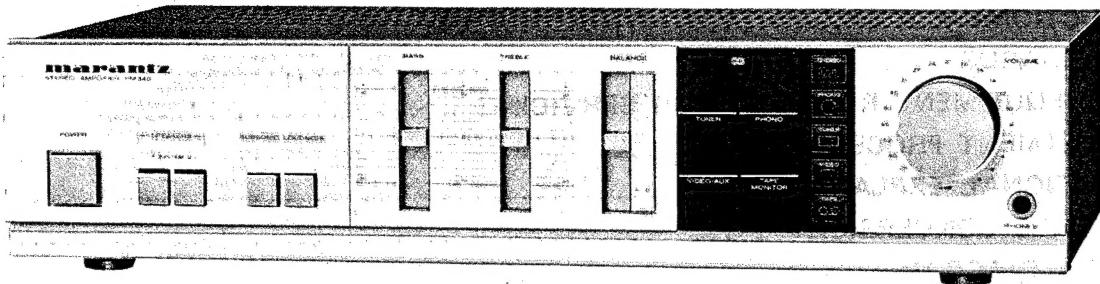
All of the above locations are fully equipped to take care of your total service needs. Because various countries have differing configuration requirements, it is necessary that you contact the service facility in your particular country. In the event that there is no service location listed for your country, please, contact the nearest facility for the necessary assistance.

In case of difficulties, do not hesitate to contact the Technical Department at abovementioned address.

**marantz®**

## TABLE OF CONTENTS

## MODEL PM340/PM240 STEREO PRE MAIN AMPLIFIER



### INTRODUCTION

This service manual was prepared for use by Authorized Warranty Stations and contains service information for the Marantz Model PM340/PM240 Stereo Pre Main Amplifier.

Servicing information and voltage data included in this manual are intended for use by knowledgeable and experienced personnel only. All instructions should be read carefully. No attempt should be made to proceed without a good understanding of circuitry operation.

The parts list furnishes complete ordering information. Most replacement parts should be ordered from the Marantz Company. However, a simple description is included for parts which can be obtained locally.

### 1. P.W. BOARDS

As can be seen from the circuit diagram the chassis of Model PM340/PM240 consists of the following units. Each unit mounted on a printed circuit board is described within the square enclosed by a bold dotted line on the circuit diagram.

1. Main Amp. .... mounted on P.W. Board P701
2. Volume ..... mounted on P.W. Board PE01
3. Power Switch ..... mounted on P.W. Board PP01
4. Headphone Jack ..... mounted on P.W. Board PW01
5. Speaker Switch ..... mounted on P.W. Board PN01  
(PM340)
6. Speaker Lamp ..... mounted on P.W. Board PX01  
(PM340)

## 2. TEST EQUIPMENT REQUIRED FOR SERVICING

This table lists the test equipment required for servicing the Model PM340/PM240 Stereo Pre Main Amplifier.

| Item  | Use  |
|---|--|
| Distortion Analyzer                         | Distortion measurements                                  |
| Audio Oscillator                            | Sinewave and squarewave signal source                    |
| AC VTVM                                     | Voltage measurements (AC)                                |
| Oscilloscope                                | Waveform analysis and trouble shooting and ASO alignment |
| Circuit Tester                              | Trouble shooting   |
| DC VTVM                                     | Voltage measurements (DC)                                |
| AC Wattmeter                                | Monitors primary power to amplifier                      |
| Line Voltmeter                              | Monitors potential of primary power to amplifier         |
| Variable Autotransformer (0 ~ 140V AC, 10A) | Adjust level of primery power to amplifier               |
| Shorting Plug                               | Shorts amplifier input to eliminate noise pickup         |

## 3. ADJUSTMENT PROCEDURES

### IDLING ADJUSTMENT

- Set the input and the output of the unit to OPEN.
- Connect a digital voltmeter between TP-1 and TP-2 of channel L, and between TP-3 and TP-4 of channel R.
- Turn on the power switch, wait for 10 seconds, and then adjust R735 of channel L and R736 of channel R so that the digital voltmeter registers 12 mV (22 mA).

## 4. FUNCTIONAL EXPLANATION

### 1. FUNCTION SWITCH

This unit can store more than one week's schedule in its memory, thanks to the four source-one monitor high voltage resistant analogue function switch IC and the capacitor backup for the memory. When the charge of the memory backup reaches zero, the tuner will be initialized. Additionally, the mute signal for the popping sound caused when the function is switched is output from DS02 so that the input of the main amplifier will be muted.

### 2. TONE AMPLIFIER

The tone amplifier features a simple design that uses a single operational amplifier. The level of 100 Hz and 10 kHz can be controlled over a range of +/-10 dB, and the gain is approximately 20 dB. The output stage is connected to the subsonic filter formed by CE21 and CE22 (0.068 µF). 0.

### 3. POWER AMPLIFIER

The power amplifier uses the monolithic IC UPC1270H which includes a driver stage as the voltage amplifier, and discrete power transistors for the final stage.

### 4. MUTING and LIMITER

QK02 ~ QK04 enable the muting driver to control the voltage of pin 2 of UPC1270H. This drives the muting circuit when the power is turned on or off. The limiter uses Q709 and Q710 to detect the current of the power transistors, and drives QK05 which operates the muting circuit.

### 5. SPEAKER OUTPUT MUTING (PM240 Only)

The sound output from the speakers can be cut off by the speaker selector switch (System 1, 2). The sound output from the speakers will also be cut off when the indicator goes out or when a pair of headphones are connected to the headphones jack.

## 5. VOLTAGE CONVERSION

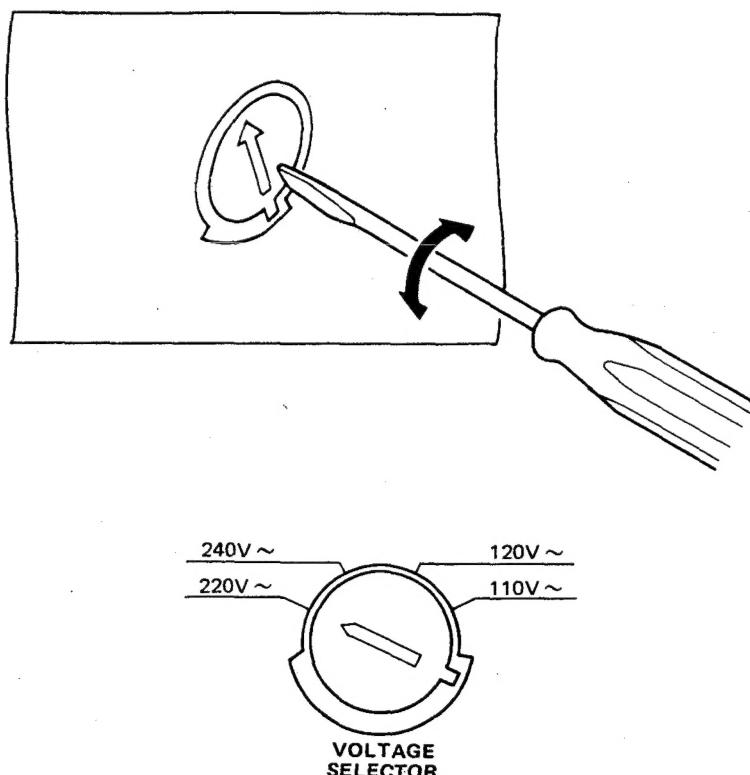
### • EUROPEAN MODEL ONLY

To convert the unit to a different power source voltage, change the position as illustrated in the drawing below.

#### CAUTION

DISCONNECT POWER SUPPLY CORD FROM AC OUTLET BEFORE CONVERTING VOLTAGE.

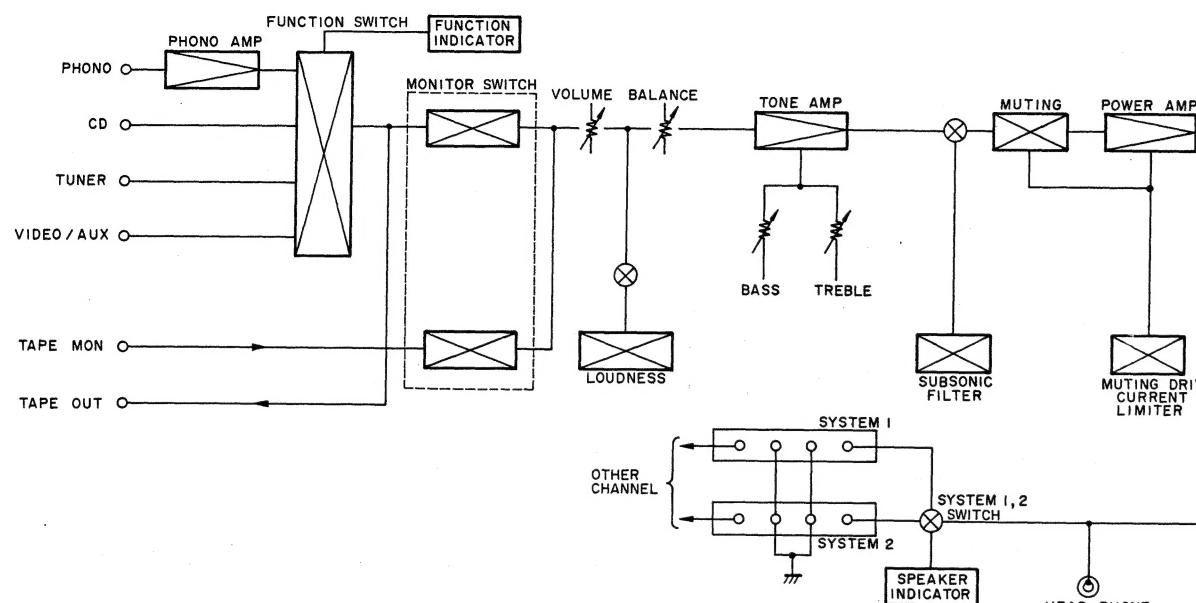
Voltage Conversion Chart



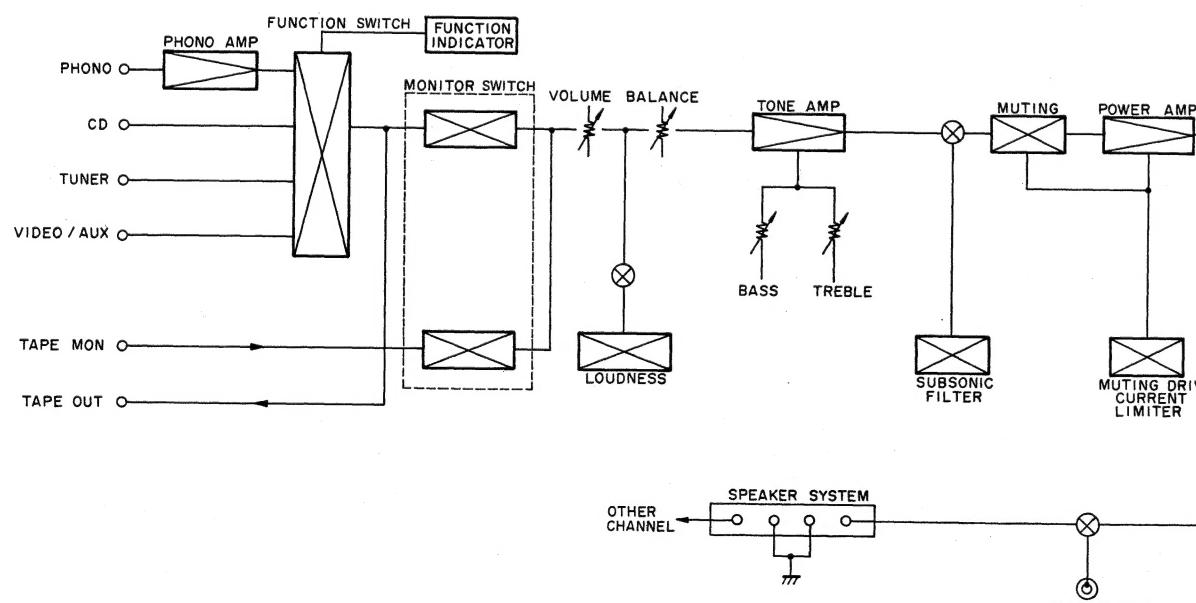
**Note on safety:** Symbol Fire or electrical shock hazard. Only original parts should be used to replace any part marked with symbol . Any other component substitution (other than original type), may increase risk of fire or electrical shock hazard.

## 6. BLOCK DIAGRAM

(Model PM340)

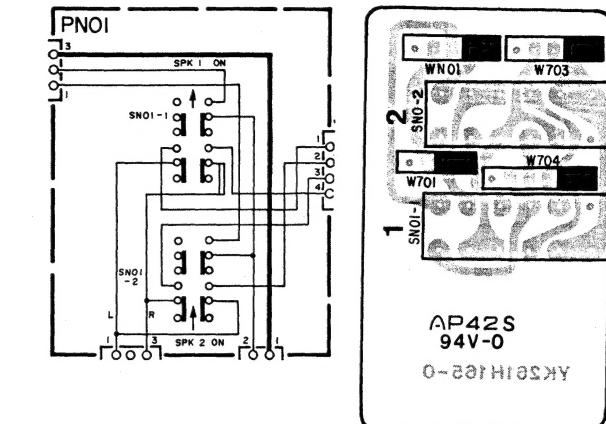


(Model PM240)

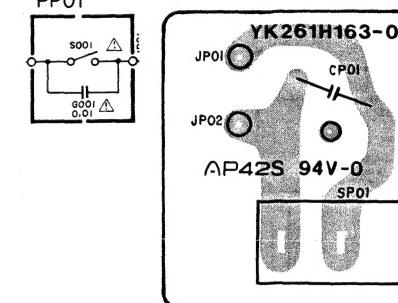


## 7. DIAGRAM AND COMPONENT LOCATIONS

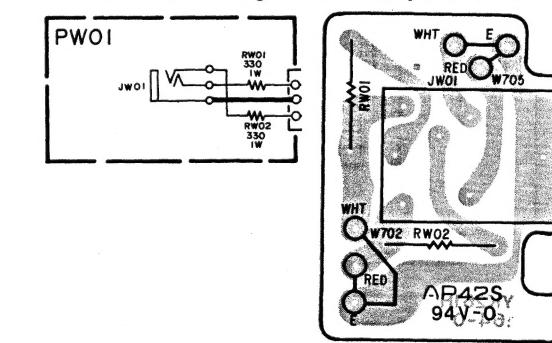
**7.1 Speaker Switch Assembly (PN01)**  
Schematic Diagram and Component Locations



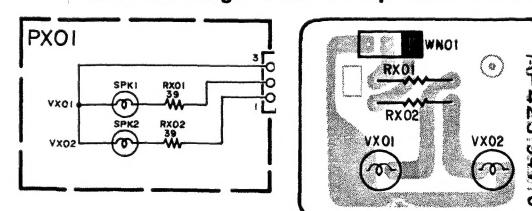
**7.2 Power Switch Assembly (PP01)**  
Schematic Diagram and Component Locations



**7.3 Headphone Jack Assembly (PW01)**  
Schematic Diagram and Component Locations



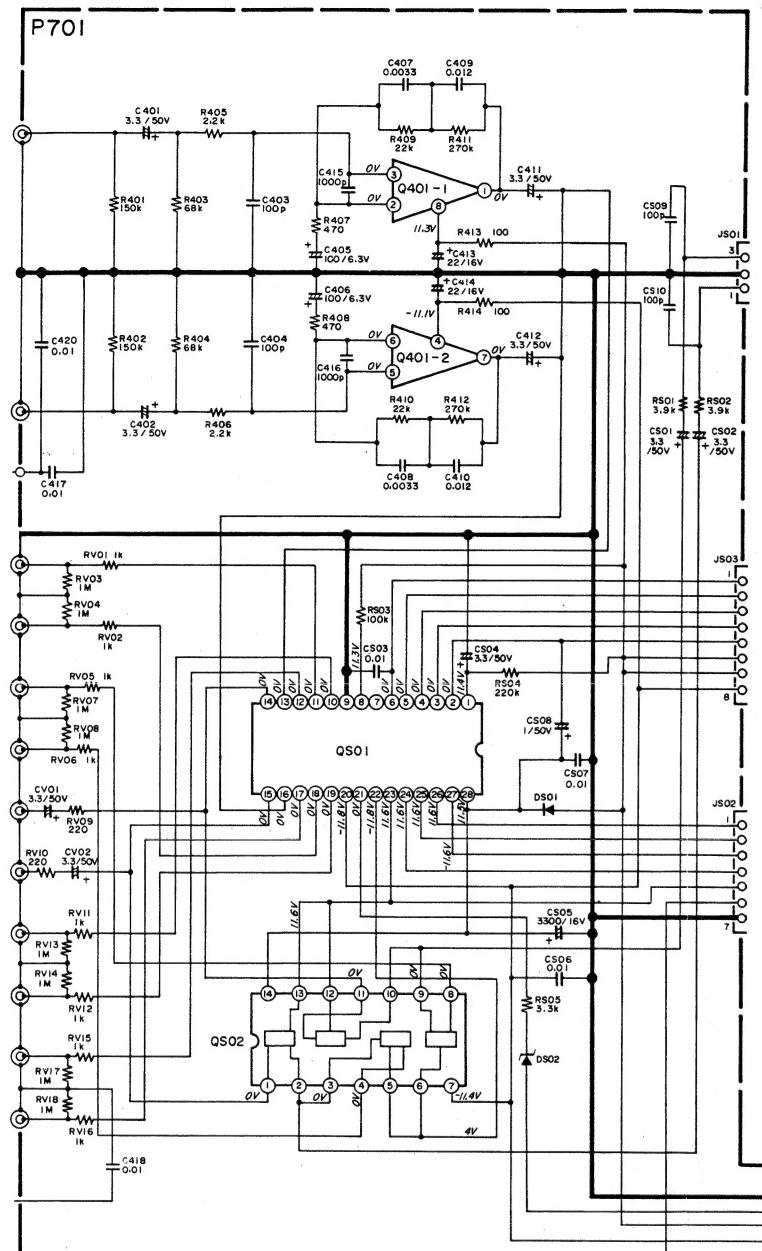
**7.4 Speaker Lamp Assembly (PX01)**  
Schematic Diagram and Component Locations



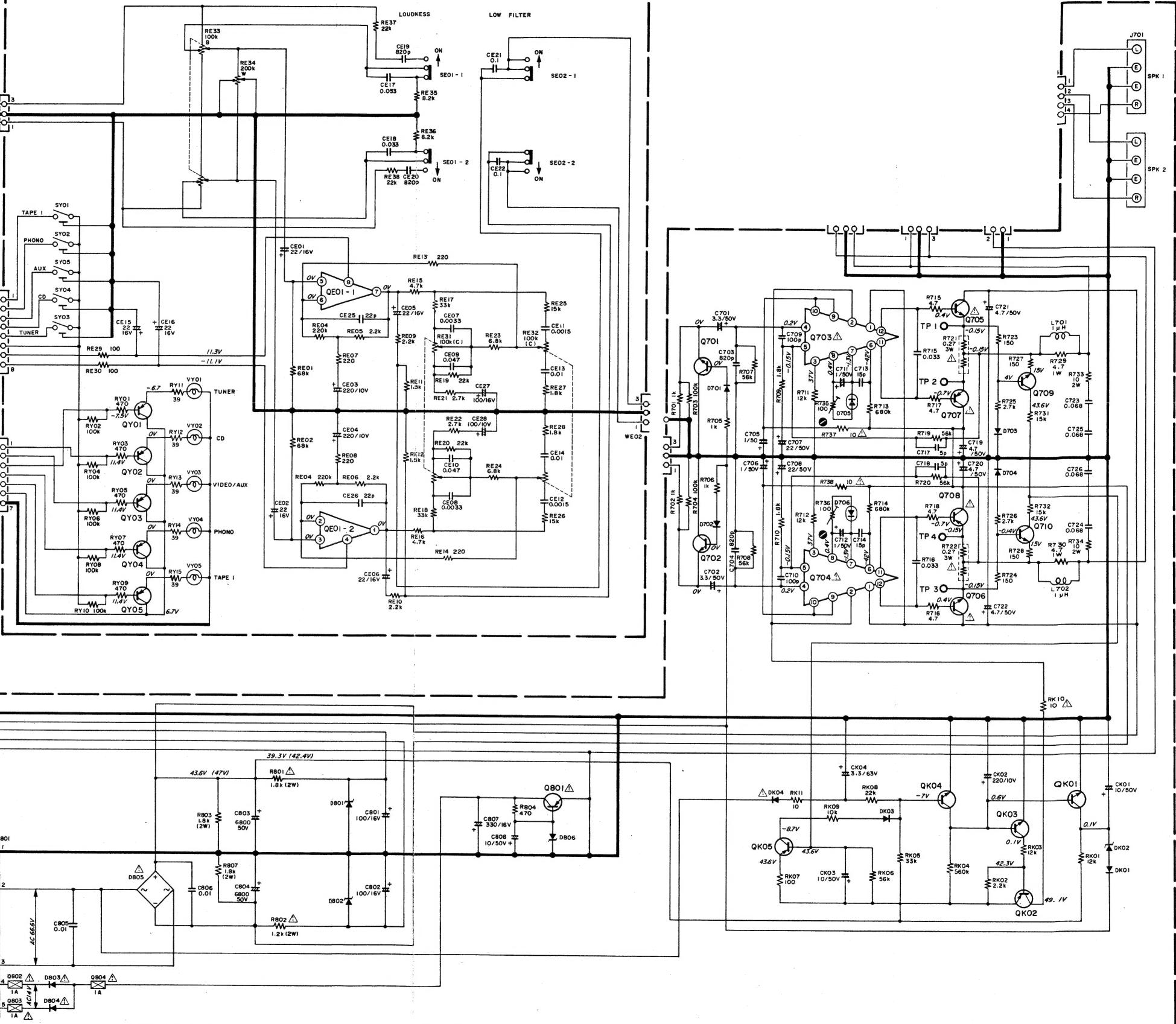
## 7.6 Volume Assembly (PE01) Schematic Diagram and Component Locations

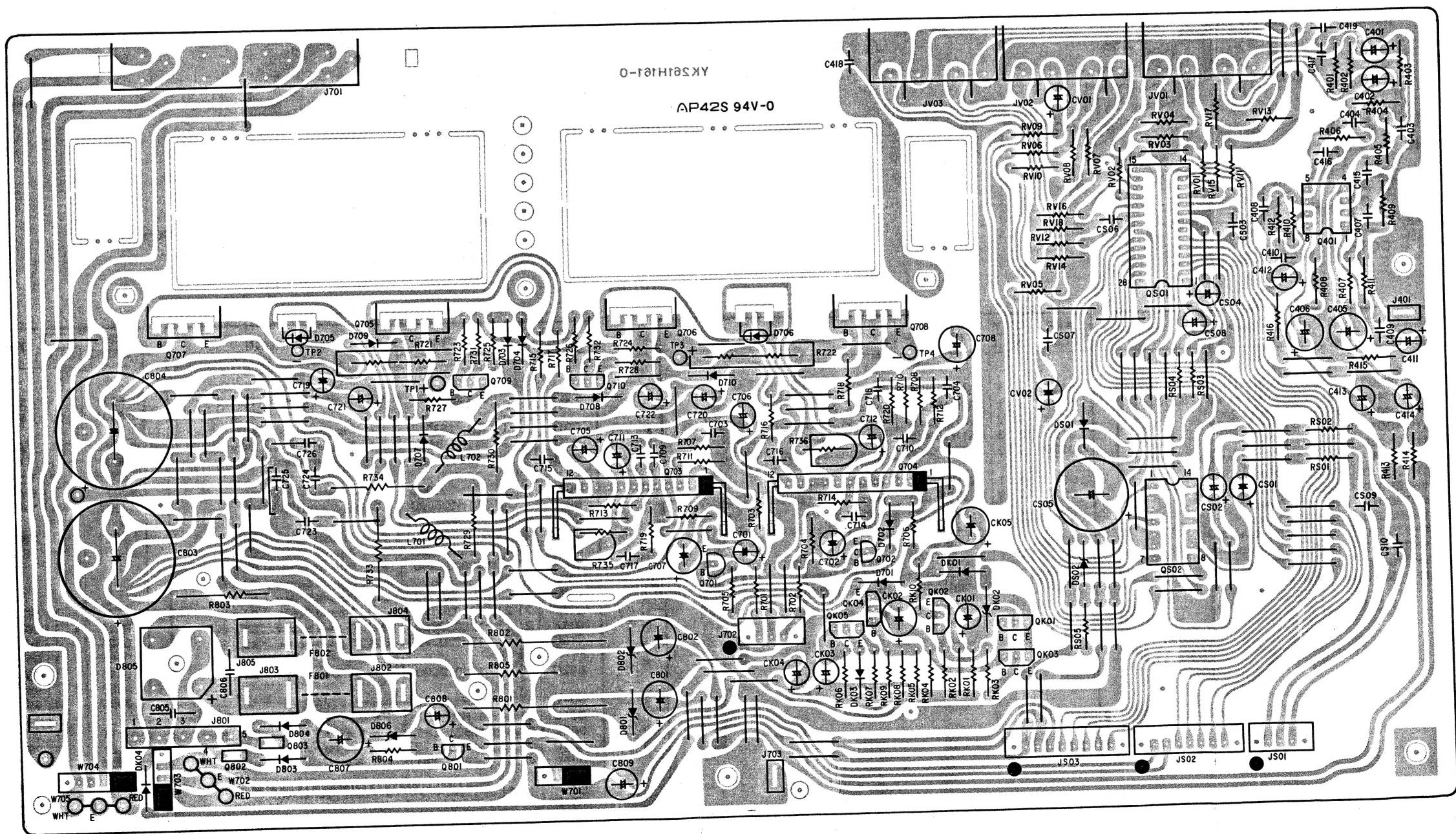
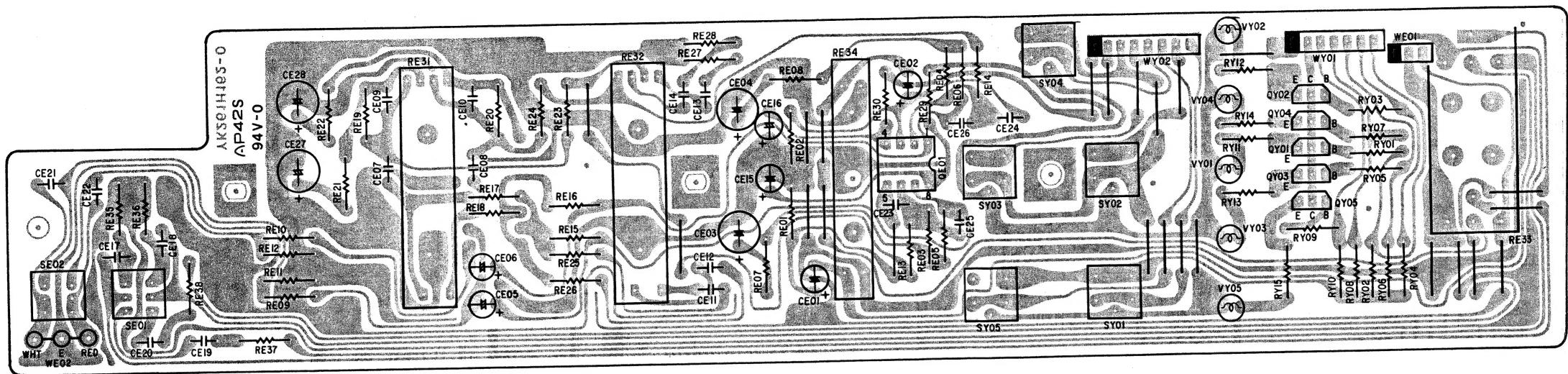
### 7.5 Main Amp. Assembly (P701)

#### Schematic Diagram and Component Locations



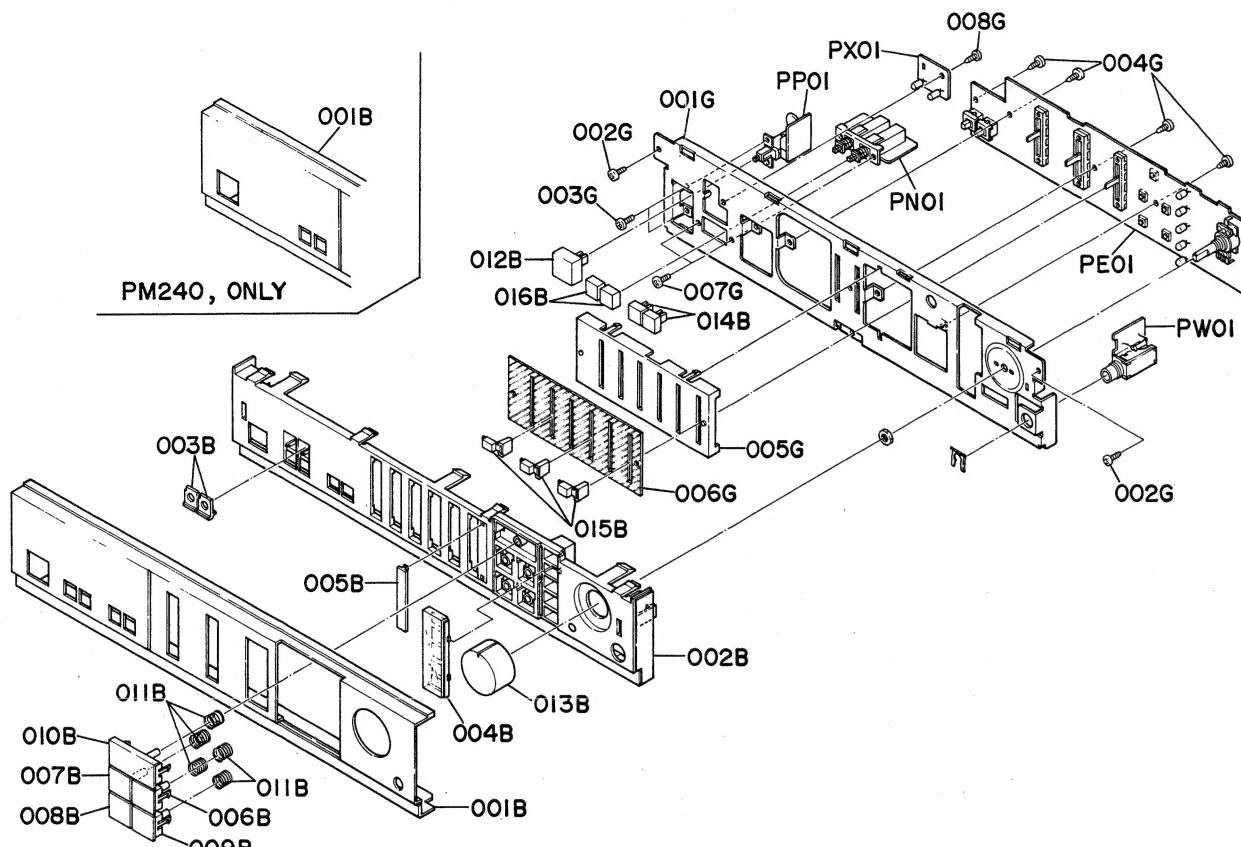
PE01



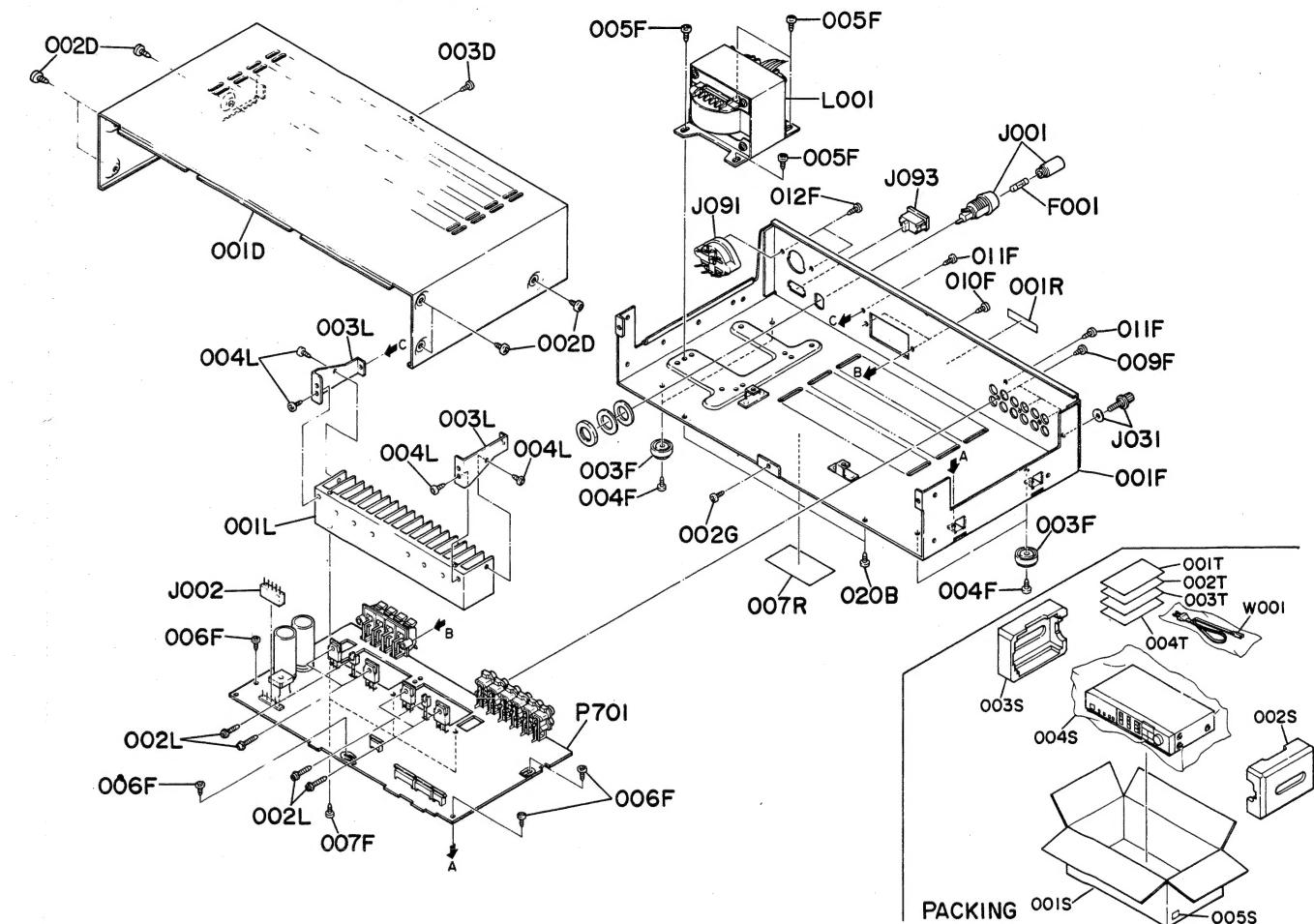


## **8. EXPLODED VIEW AND PARTS LIST**

#### ● [P01-99] Front Panel/Chassis and General Parts



- [P02-99] Main Chassis and Packing Material



| REF.<br>DESIG. | Q'TY |   | PART NO.   | DESCRIPTION                  |
|----------------|------|---|------------|------------------------------|
|                | N    | A |            |                              |
| A              | 1    | 1 | 261H248400 | Front Panel Assembly [PM340] |
| A1             | 1    | 1 | 260H248400 | Front Panel Assembly [PM240] |
| 001B           | 1    | 1 | 260H248010 | Front Panel [PM240]          |
| 001B           | 1    | 1 | 261H248010 | Front Panel [PM340]          |
| 002B           | 1    | 1 | 261H105050 | Chassis, Front               |
| 003B           | 2    | 2 | 158T355010 | Lens, Speakers [PM340]       |
| 004B           | 1    | 1 | 261H265030 | Indicator, Function          |
| 005B           | 1    | 1 | 261H265010 | Indicator, Balance           |
| 006B           | 1    | 1 | 261H270010 | Button, Tuner                |
| 007B           | 1    | 1 | 261H270020 | Button, Phono                |
| 008B           | 1    | 1 | 261H270030 | Button, Video/AUX            |
| 009B           | 1    | 1 | 261H270040 | Button, Tape Monitor         |
| 010B           | 1    | 1 | 261H270050 | Button, CD                   |
| 011B           | 5    | 5 | 261H115010 | Spring, Button               |

| REF.<br>DESIG. | Q'TY |   | PART NO.   | DESCRIPTION                      |
|----------------|------|---|------------|----------------------------------|
|                | N    | A |            |                                  |
| 012B           | 1    | 1 | 158T270010 | Button, Power                    |
| 013B           | 1    | 1 | 261H154010 | Knob, Volume                     |
| 014B           | 2    | 2 | 262H270020 | Button, Subsonic/Loudness        |
| 015B           | 3    | 3 | 261H154020 | Knob, Bass/Treble/Balance        |
| 016B           | 2    | 2 | 242H270020 | Button, Speakers [PM340]         |
| 001G           | 1    | 1 | 261H105010 | Chassis, Front                   |
| 002G           | 2    | 2 | 51280308B0 | B.H. Tapped Screw B3 x 8         |
| 003G           | 2    | 2 | 51100306A9 | B.H.M. Screw B3 x 6              |
| 004G           | 4    | 4 | 51280308B0 | B.H. Tapped Screw B3 x 8         |
| 005G           | 1    | 1 | 261H053010 | Cover, Tone                      |
| 006G           | 1    | 1 | 261H265020 | Indicator, Tone                  |
| 007G           | 2    | 2 | 51100306A9 | B.H.M. Screw B3 x 6 [PM340]      |
| 008G           | 1    | 1 | 51280308B0 | B.H. Tapped Screw B3 x 8 [PM340] |

| REF.<br>DESIG. | Q'TY |   | PART NO.   | DESCRIPTION           |         |
|----------------|------|---|------------|-----------------------|---------|
|                | N    | A |            |                       |         |
| 020B           | 2    | 2 | 51280308B0 | B.H. Tapped Screw     | B3 x 8  |
| 001D           | 1    | 1 | 261H257010 | Lid, Top Cover        |         |
| 002D           | 6    | 6 | 51280408U0 | B.H. Tapped Screw     | B4 x 8  |
| 003D           | 1    | 1 | 51280308B0 | B.H. Tapped Screw     | B3 x 8  |
| 001F           | 1    | 1 | 260H105020 | Chassis, Main [PM240] |         |
| 001F           | 1    | 1 | 261H105020 | Chassis, Main [PM340] |         |
| 003F           | 4    | 4 | 416H057010 | Leg                   |         |
| 004F           | 4    | 4 | 51280408B0 | B.H. Tapped Screw     | B4 x 8  |
| 005F           | 4    | 4 | 51280408B0 | B.H. Tapped Screw     | B4 x 8  |
| 006F           | 4    | 4 | 51280308B0 | B.H. Tapped Screw     | B3 x 8  |
| 007F           | 3    | 3 | 51280308B0 | B.H. Tapped Screw     | B3 x 8  |
| 009F           | 3    | 3 | 51280308B0 | B.H. Tapped Screw     | B3 x 8  |
| 010F           | 2    | 2 | 51280308B0 | B.H. Tapped Screw     | B3 x 8  |
| 011F           | 2    | 2 | 51280308B0 | B.H. Tapped Screw     | B3 x 8  |
| 012F           | 2    | 2 | 51280308B0 | B.H. Tapped Screw     | B3 x 8  |
| 002G           | 1    | 1 | 51280308B0 | B.H. Tapped Screw     | B3 x 8  |
| 001L           | 1    | 1 | 260H267010 | Heatsink [PM240]      |         |
| 001L           | 1    | 1 | 261H267010 | Heatsink [PM340]      |         |
| 002L           | 6    | 6 | 51780312B0 | Fin Neck B.T. Screw   | B3 x 12 |
| 003L           | 2    | 2 | 261H160010 | Bracket, Heatsink     |         |
| 004L           | 4    | 4 | 51280308B0 | B.H. Tapped Screw     | B3 x 8  |
| 001R           | 1    | 1 | 2112265110 | Indicator, Serial No. |         |
| 007R           | 1    | 1 | 2911861110 | Label                 |         |

| REF.<br>DESIG. | Q'TY |   | PART NO.   | DESCRIPTION               |
|----------------|------|---|------------|---------------------------|
|                | N    | A |            |                           |
| △ F001         | 1    | 1 | FS10100800 | Fuse 1A 250V [PM240]      |
| △ F001         | 1    | 1 | FS10125800 | Fuse T1.25A 250V [PM340]  |
| △ J001         | 1    | 1 | YJ08000290 | Jack, Fuse Holder         |
| J002           | 1    | 1 | YJ06001050 | Jack, 5P                  |
| J031           | 1    | 1 | YL03010250 | Terminal, GND             |
| △ J091         | 1    | 1 | BY05080050 | Voltage Selector          |
| △ J093         | 1    | 1 | YP04000580 | Plug, AC Inlet            |
| △ L001         | 1    | 1 | TS16803010 | Power Transformer [PM240] |
| △ L001         | 1    | 1 | TS17629010 | Power Transformer [PM340] |
| <b>PACKING</b> |      |   |            |                           |
| 001S           | 1    | 1 | 260H801010 | Packing Case [PM240]      |
| 001S           | 1    | 1 | 261H801010 | Packing Case [PM340]      |
| 002S           | 1    | 1 | 261H809010 | Cushion, R                |
| 003S           | 1    | 1 | 261H809020 | Cushion, L                |
| 004S           | 1    | 1 | 9090808030 | Polyethylene Sheet        |
| 005S           | 4    |   | 9526019030 | Serial No. Card           |
| 005S           | 4    |   | 9526019060 | Serial No. Card           |
| 001T           | 1    | 1 | 262H851310 | User Manual               |
| 002T           | 1    | 1 | 261H851320 | User Manual, Spec         |
| 003T           | 1    |   | 260H856010 | Circuit Diagram [PM240]   |
| 003T           | 1    |   | 261H856010 | Circuit Diagram [PM340]   |
| 004T           | 1    |   | 9631000090 | Warranty Card             |
| △ W001         | 1    |   | ZC01805010 | A.C. Power Cord           |
| △ W001         | 1    |   | ZC02006020 | A.C. Power Cord           |

## 9. ELECTRICAL PARTS LIST

| REF.<br>DESIG. | Q'TY |   | PART NO.   | DESCRIPTION                 |  |  |
|----------------|------|---|------------|-----------------------------|--|--|
|                | N    | A |            |                             |  |  |
| P701           | 1    | 1 | YK261H1610 | (PM340/PM240)               |  |  |
|                | 1    | 1 | ZZ261H8610 | P701-MAIN CIRCUIT BOARD     |  |  |
|                | 1    | 1 | ZZ260H8610 | P.W. Board, Main            |  |  |
|                |      |   |            | P.W. Board Assembly [PM340] |  |  |
|                |      |   |            | P.W. Board Assembly [PM240] |  |  |
| C401           | 1    | 1 | EA33505030 | P701-CAPACITORS             |  |  |
| C402           | 1    | 1 | EA33505030 | Elect 3.3μF 50V             |  |  |
| C403           | 1    | 1 | DD15101370 | Ceramic 100pF ±5%           |  |  |
| C404           | 1    | 1 | DD15101370 | Ceramic 100pF ±5%           |  |  |
| C405           | 1    | 1 | EA10701030 | Elect 100μF 10V             |  |  |
| C406           | 1    | 1 | EA10701030 | Elect 100μF 10V             |  |  |
| C407           | 1    | 1 | DF16332350 | Film 3300pF ±10%            |  |  |
| C408           | 1    | 1 | DF16332350 | Film 3300pF ±10%            |  |  |
| C409           | 1    | 1 | DF16123350 | Film 0.012μF ±10%           |  |  |
| C410           | 1    | 1 | DF16123350 | Film 0.012μF ±10%           |  |  |
| C411           | 1    | 1 | EA33505030 | Elect 3.3μF 50V             |  |  |
| C412           | 1    | 1 | EA33505030 | Elect 3.3μF 50V             |  |  |
| C413           | 1    | 1 | EA22601630 | Elect 22μF 16V              |  |  |
| C414           | 1    | 1 | EA22601630 | Elect 22μF 16V              |  |  |
| C415           | 1    | 1 | DF16182350 | Film 1800pF ±10% [PM340]    |  |  |
| C415           | 1    | 1 | DF16102350 | Film 1000pF ±10% [PM240]    |  |  |
| C416           | 1    | 1 | DF16182350 | Film 1800pF ±10% [PM340]    |  |  |
| C416           | 1    | 1 | DF16102350 | Film 1000pF ±10% [PM240]    |  |  |
| C417           | 1    | 1 | DK18103310 | Ceramic 0.01μF              |  |  |
| C418           | 1    | 1 | DK18103310 | Ceramic 0.01μF              |  |  |
| C420           | 1    | 1 | DK18103310 | Ceramic 0.01μF              |  |  |
| C701           | 1    | 1 | EA33505030 | Elect 3.3μF 50V             |  |  |
| C702           | 1    | 1 | EA33505030 | Elect 3.3μF 50V             |  |  |
| C703           | 1    | 1 | DD15221370 | Ceramic 220pF ±5%           |  |  |
| C704           | 1    | 1 | DD15221370 | Ceramic 220pF ±5%           |  |  |
| C706           | 1    | 1 | EA10505030 | Elect 1μF 50V               |  |  |
| C707           | 1    | 1 | EA22601630 | Elect 22μF 16V              |  |  |
| C708           | 1    | 1 | EA22601630 | Elect 22μF 16V              |  |  |
| C709           | 1    | 1 | DD15101370 | Ceramic 100pF ±5%           |  |  |
| C710           | 1    | 1 | DD15101370 | Ceramic 100pF ±5%           |  |  |
| C711           | 1    | 1 | EA10505030 | Elect 1μF 50V               |  |  |
| C712           | 1    | 1 | EA10505030 | Elect 1μF 50V               |  |  |
| C713           | 1    | 1 | DD15150370 | Ceramic 15pF ±5%            |  |  |
| C714           | 1    | 1 | DD15150370 | Ceramic 15pF ±5%            |  |  |
| C715           | 1    | 1 | DF16333350 | Film 0.033μF ±10%           |  |  |
| C716           | 1    | 1 | DF16333350 | Film 0.033μF ±10%           |  |  |
| C717           | 1    | 1 | DD11100370 | Ceramic 10pF ±0.5pF         |  |  |
| C718           | 1    | 1 | DD11100370 | Ceramic 10pF ±0.5pF         |  |  |
| C719           | 1    | 1 | EA47505030 | Elect 4.7μF 50V             |  |  |
| C720           | 1    | 1 | EA47505030 | Elect 4.7μF 50V             |  |  |
| C721           | 1    | 1 | EA47505030 | Elect 4.7μF 50V             |  |  |
| C722           | 1    | 1 | EA47505030 | Elect 4.7μF 50V             |  |  |
| C723           | 1    | 1 | DF16683350 | Film 0.068μF ±10%           |  |  |
| C724           | 1    | 1 | DF16683350 | Film 0.068μF ±10%           |  |  |
| C725           | 1    | 1 | DF16683350 | Film 0.068μF ±10%           |  |  |
| C726           | 1    | 1 | DF16683350 | Film 0.068μF ±10%           |  |  |
| C801           | 1    | 1 | EA10701630 | Elect 100μF 16V             |  |  |
| C802           | 1    | 1 | EA10701630 | Elect 100μF 16V             |  |  |
| C803           | 1    | 1 | EB68805060 | Elect 6800μF 50V            |  |  |
| C804           | 1    | 1 | EB68805060 | Elect 6800μF 50V            |  |  |
| C805           | 1    | 1 | DK18103560 | Ceramic 0.01μF              |  |  |

| REF.<br>DESIG. | Q'TY |   | PART NO.   | DESCRIPTION                                      |       |         |
|----------------|------|---|------------|--|-------|---------|
|                | N    | A |            |  |       |         |
| C806           | 1    | 1 | DK18103560 | Ceramic 0.01μF                                   |       |         |
| C807           | 1    | 1 | EA33701630 | Elect 330μF 16V                                  |       |         |
| C808           | 1    | 1 | EA10605030 | Elect 10μF 50V                                   |       |         |
| CK01           | 1    | 1 | EA10605030 | Elect 10μF 50V                                   |       |         |
| CK02           | 1    | 1 | EA22701030 | Elect 220μF 10V                                  |       |         |
| CK03           | 1    | 1 | EA10605030 | Elect 10μF 50V                                   |       |         |
| CK04           | 1    | 1 | EA33505030 | Elect 3.3μF 50V                                  |       |         |
| CS01           | 1    | 1 | EA33505030 | Elect 3.3μF 50V                                  |       |         |
| CS02           | 1    | 1 | EA33505030 | Elect 3.3μF 50V                                  |       |         |
| CS03           | 1    | 1 | DK18103310 | Ceramic 0.01μF                                   |       |         |
| CS04           | 1    | 1 | EA33505030 | Elect 3.3μF 50V                                  |       |         |
| CS05           | 1    | 1 | EA33801630 | Elect 3300μF 16V                                 |       |         |
| CS06           | 1    | 1 | DK18103310 | Ceramic 0.01μF                                   |       |         |
| CS07           | 1    | 1 | DK18103310 | Ceramic 0.01μF                                   |       |         |
| CS08           | 1    | 1 | EA10505030 | Elect 1μF 50V                                    |       |         |
| CS09           | 1    | 1 | DD15101370 | Ceramic 100pF ±5%                                |       |         |
| CS10           | 1    | 1 | DD15101370 | Ceramic 100pF ±5%                                |       |         |
| CV01           | 1    | 1 | EA33505030 | Elect 3.3μF 50V                                  |       |         |
| CV02           | 1    | 1 | EA33505030 | Elect 3.3μF 50V                                  |       |         |
| R401           | 1    | 1 | GD05154140 | P701-RESISTORS<br>(All Resistors are ±5% & 1/4W) | 150KΩ |         |
| R402           | 1    | 1 | GD05154140 |  | 150KΩ |         |
| R403           | 1    | 1 | GD05683140 |  | 68KΩ  |         |
| R404           | 1    | 1 | GD05683140 |  | 68KΩ  |         |
| R405           | 1    | 1 | GD05222140 |  | 2.2KΩ |         |
| R406           | 1    | 1 | GD05222140 |  | 2.2KΩ |         |
| R407           | 1    | 1 | GD05471140 |  | 470Ω  |         |
| R408           | 1    | 1 | GD05471140 |  | 470Ω  |         |
| R409           | 1    | 1 | GD05223140 |  | 22KΩ  |         |
| R410           | 1    | 1 | GD05223140 |  | 22KΩ  |         |
| R411           | 1    | 1 | GD05274140 |  | 270KΩ |         |
| R412           | 1    | 1 | GD05274140 |  | 270KΩ |         |
| R413           | 1    | 1 | GG05101140 |  | 100Ω  |         |
| R414           | 1    | 1 | GG05101140 |  | 100Ω  |         |
| R701           | 1    | 1 | GD05102140 |  | 1KΩ   |         |
| R702           | 1    | 1 | GD05102140 |  | 1KΩ   |         |
| R703           | 1    | 1 | GD05104140 |  | 100KΩ |         |
| R704           | 1    | 1 | GD05104140 |  | 100KΩ |         |
| R705           | 1    | 1 | GD05102140 |  | 1KΩ   |         |
| R706           | 1    | 1 | GD05102140 |  | 1KΩ   |         |
| R707           | 1    | 1 | GD05563140 |  | 56KΩ  |         |
| R708           | 1    | 1 | GD05563140 |  | 56KΩ  |         |
| R709           | 1    | 1 | GD05182140 |  | 1.8KΩ | [PM340] |
| R709           | 1    | 1 | GD05122140 |  | 1.2KΩ | [PM240] |
| R710           | 1    | 1 | GD05182140 |  | 1.8KΩ | [PM340] |
| R710           | 1    | 1 | GD05122140 |  | 1.2KΩ | [PM240] |
| R711           | 1    | 1 | GD05123140 |  | 12KΩ  |         |
| R712           | 1    | 1 | GD05123140 |  | 12KΩ  |         |
| R713           | 1    | 1 | GD05684140 |  | 680KΩ |         |
| R714           | 1    | 1 | GD05684140 |  | 680KΩ |         |
| R715           | 1    | 1 | GG05047140 |  | 4.7Ω  |         |

| REF.<br>DESIG. | Q'TY |   | PART NO.   | DESCRIPTION         |  |
|----------------|------|---|------------|---------------------|--|
|                | N    | A |            |                     |  |
| R716           | 1    | 1 | GG05047140 | 4.7Ω                |  |
| R717           | 1    | 1 | GG05047140 | 4.7Ω                |  |
| R718           | 1    | 1 | GG05047140 | 4.7Ω                |  |
| R719           | 1    | 1 | GD05563140 | 56KΩ                |  |
| R720           | 1    | 1 | GD05563140 | 56KΩ                |  |
| △R721          | 1    | 1 | BW10000040 | 0.27Ω, Comp. 3W x 2 |  |
| △R722          | 1    | 1 | BW10000040 | 0.27Ω, Comp. 3W x 2 |  |
| R723           | 1    | 1 | GD05151140 | 150Ω                |  |
| R724           | 1    | 1 | GD05151140 | 150Ω                |  |
| R725           | 1    | 1 | GD05272140 | 2.7KΩ               |  |
| R726           | 1    | 1 | GD05272140 | 2.7KΩ               |  |
| R727           | 1    | 1 | GD05151140 | 150Ω                |  |
| R728           | 1    | 1 | GD05151140 | 150Ω                |  |
| R729           | 1    | 1 | GA05047010 | 4.7Ω 1W             |  |
| R730           | 1    | 1 | GA05047010 | 4.7Ω 1W             |  |
| R731           | 1    | 1 | GD05153140 | 15KΩ                |  |
| R732           | 1    | 1 | GD05153140 | 15KΩ                |  |
| R733           | 1    | 1 | GA05100020 | 10Ω 2W              |  |
| R734           | 1    | 1 | GA05100020 | 10Ω 2W              |  |
| R735           | 1    | 1 | RA01010600 | 100Ω(B), Trimming   |  |
| R736           | 1    | 1 | RA01010600 | 100Ω(B), Trimming   |  |
| △R737          | 1    | 1 | NF05100140 | 10Ω                 |  |
| △R738          | 1    | 1 | NF05100140 | 10Ω                 |  |
| △R801          | 1    | 1 | GA05182020 | 1.8KΩ 2W [PM340]    |  |
| △R801          | 1    | 1 | GA05152020 | 1.5KΩ 2W [PM240]    |  |
| △R802          | 1    | 1 | GA05122020 | 1.2KΩ 2W [PM340]    |  |
| △R802          | 1    | 1 | GA05102120 | 1KΩ 2W [PM240]      |  |
| R803           | 1    | 1 | GA05182020 | 1.8KΩ 2W            |  |
| R804           | 1    | 1 | GD05471140 | 470Ω                |  |
| R805           | 1    | 1 | GA05182020 | 1.8KΩ 2W            |  |
| RK01           | 1    | 1 | GD05123140 | 12KΩ                |  |
| RK02           | 1    | 1 | GD05222140 | 2.2KΩ               |  |
| RK03           | 1    | 1 | GD05123140 | 12KΩ                |  |
| RK04           | 1    | 1 | GD05564140 | 560KΩ               |  |
| RK05           | 1    | 1 | GD05333140 | 33KΩ                |  |
| RK06           | 1    | 1 | GD05563140 | 56KΩ                |  |
| RK07           | 1    | 1 | GD05101140 | 100Ω                |  |
| RK08           | 1    | 1 | GD05223140 | 22KΩ                |  |
| RK09           | 1    | 1 | GD05103140 | 10KΩ                |  |
| △RK10          | 1    | 1 | RF05100140 | 10Ω, Fusible        |  |
| △RK11          | 1    | 1 | RF05100140 | 10Ω, Fusible        |  |
| RS01           | 1    | 1 | GD05392140 | 3.9KΩ [PM340]       |  |
| RS01           | 1    | 1 | GD05562140 | 5.6KΩ [PM240]       |  |
| RS02           | 1    | 1 | GD05392140 | 3.9KΩ [PM340]       |  |
| RS02           | 1    | 1 | GD05562140 | 5.6KΩ [PM240]       |  |
| RS03           | 1    | 1 | GD05104140 | 100KΩ               |  |
| RS04           | 1    | 1 | GD05224140 | 220KΩ               |  |
| RS05           | 1    | 1 | GD05332140 | 3.3KΩ               |  |
| RV01           | 1    | 1 | GD05102140 | 1KΩ                 |  |
| RV02           | 1    | 1 | GD05102140 | 1KΩ                 |  |
| RV03           | 1    | 1 | GD05105140 | 1MΩ                 |  |
| RV04           | 1    | 1 | GD05105140 | 1MΩ                 |  |
| RV05           | 1    | 1 | GD05102140 | 1KΩ                 |  |
| RV06           | 1    | 1 | GD05102140 | 1KΩ                 |  |
| RV07           | 1    | 1 | GD05105140 | 1MΩ                 |  |
| RV08           | 1    | 1 | GD05105140 | 1MΩ                 |  |
| RV09           | 1    | 1 | GD05221140 | 220Ω                |  |
| RV10           | 1    | 1 | GD05221140 | 220Ω                |  |

| REF.<br>DESIG.             | Q'TY |   | PART NO.   | DESCRIPTION       |                       |
|----------------------------|------|---|------------|-------------------|-----------------------|
|                            | N    | A |            |                   |                       |
| RV11                       | 1    | 1 | GD05102140 | 1KΩ               |                       |
| RV12                       | 1    | 1 | GD05102140 | 1KΩ               |                       |
| RV13                       | 1    | 1 | GD05105140 | 1MΩ               |                       |
| RV14                       | 1    | 1 | GD05105140 | 1MΩ               |                       |
| RV15                       | 1    | 1 | GD05102140 | 1KΩ               |                       |
| RV16                       | 1    | 1 | GD05102140 | 1KΩ               |                       |
| RV17                       | 1    | 1 | GD05105140 | 1MΩ               |                       |
| RV18                       | 1    | 1 | GD05105140 | 1MΩ               |                       |
| <b>P701-SEMICONDUCTORS</b> |      |   |            |                   |                       |
| D701                       | 1    | 1 | HD20001000 | Diode             | 1S1555                |
| D702                       | 1    | 1 | HD20001000 | Diode             | 1S1555                |
| D703                       | 1    | 1 | HD20001000 | Diode             | 1S1555                |
| D704                       | 1    | 1 | HD20001000 | Diode             | 1S1555                |
| D705                       | 1    | 1 | HV00009080 | Varistor          | STV3H(O, Y)           |
| D706                       | 1    | 1 | HV00009080 | Varistor          | STV3H(O, Y)           |
| D801                       | 1    | 1 | HD30038010 | Zener             | HZ11C-1L              |
| D802                       | 1    | 1 | HD30038010 | Zener             | HZ11C-1L              |
| △D803                      | 1    | 1 | HD20022030 | Diode             | DSF10C                |
| △D804                      | 1    | 1 | HD20022030 | Diode             | DSF10C                |
| △D805                      | 1    | 1 | HD20008290 | Diode             | S4VB20                |
| D806                       | 1    | 1 | HD30045010 | Zener             | HZ9C-1L               |
| DK01                       | 1    | 1 | HD20001000 | Diode             | 1S1555                |
| DK02                       | 1    | 1 | HD30023010 | Zener             | HZ6C1L                |
| DK03                       | 1    | 1 | HD20002210 | Diode             | 1S2472                |
| △DK04                      | 1    | 1 | HD20002230 | Diode             | DSF10C                |
| DS01                       | 1    | 1 | HD20001000 | Diode             | 1S1555                |
| DS02                       | 1    | 1 | HD30045010 | Zener             | HZ9C-1L               |
| Q401                       | 1    | 1 | HC10008090 | IC                | 4558DD                |
| Q701                       | 1    | 1 | HT413022B0 | Transistor        | 2SD1302(S, T)         |
| Q702                       | 1    | 1 | HT413022B0 | Transistor        | 2SD1302(S, T)         |
| △Q703                      | 1    | 1 | HC10097060 | IC                | μPC1270H              |
| △Q704                      | 1    | 1 | HC10097060 | IC                | μPC1270H              |
| △Q705                      | 1    | 1 | HT325782B0 | Transistor        | 2SC2578(O, Y) [PM340] |
| △Q705                      | 1    | 1 | HT326652B0 | Transistor        | 2SC2265(O, Y) [PM240] |
| △Q706                      | 1    | 1 | HT325782B0 | Transistor        | 2SC2578(O, Y) [PM340] |
| △Q706                      | 1    | 1 | HT326652B0 | Transistor        | 2SC2665(O, Y) [PM240] |
| △Q707                      | 1    | 1 | HT111032B0 | Transistor        | 2SA1103(O, Y) [PM340] |
| △Q707                      | 1    | 1 | HT111352B0 | Transistor        | 2SA1135(O, Y) [PM240] |
| △Q708                      | 1    | 1 | HT111032B0 | Transistor        | 2SA1103(O, Y) [PM340] |
| △Q708                      | 1    | 1 | HT111352B0 | Transistor        | 2SA1135(O, Y) [PM240] |
| Q709                       | 1    | 1 | HT327852B0 | Transistor        | 2SC2785(J, H)         |
| Q710                       | 1    | 1 | HT327852B0 | Transistor        | 2SC2785(J, H)         |
| △Q801                      | 1    | 1 | HT206472F0 | Transistor        | 2SB647(C, D)          |
| △Q802                      | 1    | 1 | FU10215010 | Current Protector | ICP-F25(1A)           |
| △Q803                      | 1    | 1 | FU10215010 | Current Protector | ICP-F25(1A)           |
| △Q804                      | 1    | 1 | FU10215010 | Current Protector | ICP-F25(1A)           |
| QK01                       | 1    | 1 | HT327852B0 | Transistor        | 2SC2785(J, H)         |
| QK02                       | 1    | 1 | HT111752B0 | Transistor        | 2SA1175(J, H)         |
| QK03                       | 1    | 1 | HT327852B0 | Transistor        | 2SC2785(J, H)         |
| QK04                       | 1    | 1 | HT327852B0 | Transistor        | 2SC2758(J, H)         |
| QK05                       | 1    | 1 | HT111752B0 | Transistor        | 2SA1175(J, H)         |
| QS01                       | 1    | 1 | HC10110030 | IC                | LC7815H               |
| QS02                       | 1    | 1 | HC406603CO | IC                | LC466BH               |

| REF.<br>DESIG. | Q'TY<br>N | Q'TY<br>A | PART NO.   | DESCRIPTION                                   |
|----------------|-----------|-----------|------------|---|
| J401           | 1         | 1         | YL01010110 | P701-MISCELLANEOUS<br>Terminal, Earth         |
| J701           | 1         | 1         | YT03080020 | Terminal, Speaker                             |
| J702           | 1         | 1         | YJ06002430 | Jack, 3P                                      |
| J703           | 1         | 1         | YL01010110 | Terminal, Earth                               |
| J801           | 1         | 1         | YP06001050 | Plug, 5P                                      |
| JV01           | 1         | 1         | YT02040470 | Terminal, RCA Jack (4P)                       |
| JV02           | 1         | 1         | YT02040470 | Terminal, RCA Jack (4P)                       |
| JV03           | 1         | 1         | YT02040470 | Terminal, RCA Jack (4P)                       |
| JS01           | 1         | 1         | YJ06002430 | Jack, 3P                                      |
| JS02           | 1         | 1         | YJ06002460 | Jack, 7P                                      |
| JS03           | 1         | 1         | YJ06002270 | Jack, 8P                                      |
| L701           | 1         | 1         | LL23905120 | Coil, 1μH                                     |
| L702           | 1         | 1         | LL23905120 | Coil, 1μH                                     |
| W701           | 1         | 1         | YU02220260 | Jumper Lead, 2P [PM340]                       |
| W703           | 1         | 1         | YU03140260 | Jumper Lead, 3P [PM340]                       |
| W704           | 1         | 1         | YU04140260 | Jumper Lead, 4P [PM340]                       |
| PE01           | 1         | 1         | YK261H1620 | (PM340/PM240)<br>PE01-VOLUME<br>CIRCUIT BOARD |
|                | 1         | 1         | ZZ261H8620 | P.W. Board, Volume<br>P.W. Board Assembly     |
| CE01           | 1         | 1         | EA22601630 | PE01-CAPACITORS<br>Elect 22μF 16V             |
| CE02           | 1         | 1         | EA22601630 | Elect 22μF 16V                                |
| CE03           | 1         | 1         | EA22701030 | Elect 220μF 10V                               |
| CE04           | 1         | 1         | EA22701030 | Elect 220μF 10V                               |
| CE05           | 1         | 1         | EA22601630 | Elect 22μF 16V                                |
| CE06           | 1         | 1         | EA22601630 | Elect 22μF 16V                                |
| CE07           | 1         | 1         | DF16332350 | Film 3300pF ±10%                              |
| CE08           | 1         | 1         | DF16332350 | Film 3300pF ±10%                              |
| CE09           | 1         | 1         | DF16473350 | Film 0.047μF ±10%                             |
| CE10           | 1         | 1         | DF16473350 | Film 0.047μF ±10%                             |
| CE11           | 1         | 1         | DF16152350 | Film 1500pF ±10%                              |
| CE12           | 1         | 1         | DF16152350 | Film 1500pF ±10%                              |
| CE13           | 1         | 1         | DF16103350 | Film 0.01μF ±10%                              |
| CE14           | 1         | 1         | DF16103350 | Film 0.01μF ±10%                              |
| CE15           | 1         | 1         | EA22601630 | Elect 22μF 16V                                |
| CE16           | 1         | 1         | EA22601630 | Elect 22μF 16V                                |
| CE17           | 1         | 1         | DF16333350 | Film 0.033μF ±10%                             |
| CE18           | 1         | 1         | DF16333350 | Film 0.033μF ±10%                             |
| CE19           | 1         | 1         | DK16821300 | Ceramic 820pF ±10%                            |
| CE20           | 1         | 1         | DK16821300 | Ceramic 820pF ±10%                            |
| CE21           | 1         | 1         | DF15104350 | Film 0.1μF ±5%                                |
| CE22           | 1         | 1         | DF15104350 | Film 0.1μF ±5%                                |
| CE25           | 1         | 1         | DD15220370 | Ceramic 22pF ±5%                              |
| CE26           | 1         | 1         | DD15220370 | Ceramic 22pF ±5%                              |
| CE27           | 1         | 1         | EA10701030 | Elect 100μF 10V                               |
| CE28           | 1         | 1         | EA10701030 | Elect 100μF 10V                               |

| REF.<br>DESIG. | Q'TY<br>N | Q'TY<br>A | PART NO.   | DESCRIPTION                                      |
|----------------|-----------|-----------|------------|--|
|                |           |           |            | PE01-RESISTORS<br>(All Resistors are ±5% & 1/4W) |
| RE01           | 1         | 1         | GD05683140 | 68KΩ   |
| RE02           | 1         | 1         | GD05683140 | 68KΩ   |
| RE03           | 1         | 1         | GD05224140 | 220KΩ  |
| RE04           | 1         | 1         | GD05224140 | 220KΩ  |
| RE05           | 1         | 1         | GD05222140 | 2.2KΩ  |
| RE06           | 1         | 1         | GD05222140 | 2.2KΩ  |
| RE07           | 1         | 1         | GD05222140 | 220Ω   |
| RE08           | 1         | 1         | GD05222140 | 220Ω   |
| RE09           | 1         | 1         | GD05222140 | 2.2KΩ  |
| RE10           | 1         | 1         | GD05222140 | 2.2KΩ  |
| RE11           | 1         | 1         | GD05152140 | 1.5KΩ  |
| RE12           | 1         | 1         | GD05152140 | 1.5KΩ  |
| RE13           | 1         | 1         | GD05222140 | 220Ω   |
| RE14           | 1         | 1         | GD05222140 | 220Ω   |
| RE15           | 1         | 1         | GD05472140 | 4.7KΩ  |
| RE16           | 1         | 1         | GD05472140 | 4.7KΩ  |
| RE17           | 1         | 1         | GD05333140 | 33KΩ   |
| RE18           | 1         | 1         | GD05333140 | 33KΩ   |
| RE19           | 1         | 1         | GD05223140 | 22KΩ   |
| RE20           | 1         | 1         | GD05223140 | 22KΩ   |
| RE21           | 1         | 1         | GD05272140 | 2.7KΩ  |
| RE22           | 1         | 1         | GD05272140 | 2.7KΩ  |
| RE23           | 1         | 1         | GD05682140 | 6.8KΩ  |
| RE24           | 1         | 1         | GD05682140 | 6.8KΩ  |
| RE25           | 1         | 1         | GD05153140 | 15KΩ   |
| RE26           | 1         | 1         | GD05153140 | 15KΩ   |
| RE27           | 1         | 1         | GD05182140 | 1.8KΩ  |
| RE28           | 1         | 1         | GD05182140 | 1.8KΩ  |
| RE29           | 1         | 1         | GG05101140 | 100Ω   |
| RE30           | 1         | 1         | GG05101140 | 100Ω   |
| RE31           | 1         | 1         | RS01040320 | 100KΩ(C) x 2, Variable                           |
| RE32           | 1         | 1         | RS01040320 | 100KΩ(C) x 2, Variable                           |
| RE33           | 1         | 1         | RM01040840 | 100KΩ(B), Variable                               |
| RE34           | 1         | 1         | RX02040080 | 200KΩ(W), Variable                               |
| RE35           | 1         | 1         | GD05822140 | 8.2KΩ  |
| RE36           | 1         | 1         | GD05822140 | 8.2KΩ  |
| RE37           | 1         | 1         | GD05223140 | 22KΩ   |
| RE38           | 1         | 1         | GD05223140 | 22KΩ   |
| RY01           | 1         | 1         | GD05471140 | 470Ω   |
| RY02           | 1         | 1         | GD05104140 | 100KΩ  |
| RY03           | 1         | 1         | GD05471140 | 470Ω   |
| RY04           | 1         | 1         | GD05104140 | 100KΩ  |
| RY05           | 1         | 1         | GD05471140 | 470Ω   |
| RY06           | 1         | 1         | GD05104140 | 100KΩ  |
| RY07           | 1         | 1         | GD05471140 | 470Ω   |
| RY08           | 1         | 1         | GD05104140 | 100KΩ  |
| RY09           | 1         | 1         | GD05471140 | 470Ω   |
| RY10           | 1         | 1         | GD05104140 | 100KΩ  |
| RY11           | 1         | 1         | GD05390140 | 39Ω  |
| RY12           | 1         | 1         | GD05390140 | 39Ω  |
| RY13           | 1         | 1         | GD05390140 | 39Ω  |
| RY14           | 1         | 1         | GD05390140 | 39Ω  |
| RY15           | 1         | 1         | GD05390140 | 39Ω  |

| REF.<br>DESIG. | Q'TY<br>N | Q'TY<br>A | PART NO.   | DESCRIPTION   |
|----------------|-----------|-----------|------------|---|
| QE01           | 1         | 1         | HC10008090 | PE01-SEMICONDUCTORS<br>IC 4458DC                      |
| QY01           | 1         | 1         | HT111752B0 | Transistor 2SA1175(J, H)                              |
| QY02           | 1         | 1         | HT111752B0 | Transistor 2SA1175(J, H)                              |
| QY03           | 1         | 1         | HT111752B0 | Transistor 2SA1175(J, H)                              |
| QY04           | 1         | 1         | HT111752B0 | Transistor 2SA1175(J, H)                              |
| QY05           | 1         | 1         | HT111752B0 | Transistor 2SA1175(J, H)                              |
| SE01           | 1         | 1         | SP02011090 | PE01-MISCELLANEOUS<br>Push Switch, Loudness           |
| SE02           | 1         | 1         | SP02011090 | Push Switch, Low Filter                               |
| SY01           | 1         | 1         | SP01010840 | Push Switch, Tape 1                                   |
| SY02           | 1         | 1         | SP01010840 | Push Switch, Phono                                    |
| SY03           | 1         | 1         | SP01010840 | Push Switch, Tape 2                                   |
| SY04           | 1         | 1         | SP01010840 | Push Switch, CD                                       |
| SY05           | 1         | 1         | SP01010840 | Push Switch, Tuner                                    |
| VY01           | 1         | 1         | IN10080620 | Lamp 50mA 8V  |
| VY02           | 1         | 1         | IN10080620 | Lamp 50mA 8V  |
| VY03           | 1         | 1         | IN10080620 | Lamp 50mA 8V  |
| VY04           | 1         | 1         | IN10080620 | Lamp 50mA 8V  |
| VY05           | 1         | 1         | IN10080620 | Lamp 50mA 8V  |
| WE01           | 1         | 1         | YU03160260 | Jumper Lead, 3P                                       |
| WE02           | 1         | 1         | YU03240260 | Jumper Lead, 3P                                       |
| WY01           | 1         | 1         | YU07160260 | Jumper Lead, 7P                                       |
| WY02           | 1         | 1         | YU08160260 | Jumper Lead, 8P                                       |
| PN01           | 1         | 1         | YK261H1650 | (PM340, ONLY)<br>PN01-SPEAKER SWITCH<br>CIRCUIT BOARD |
|                | 1         | 1         | ZZ261H8650 | P.W. Board, Speaker Switch<br>P.W. Board Assembly     |
| SN01           | 1         | 1         | SP04020440 | Push Switch   |
| WN01           | 1         | 1         | YU03120260 | Jumper Lead, 3P                                       |
| PP01           | 1         | 1         | YK261H1630 | (PM340/PM240)<br>PP01-POWER SWITCH<br>CIRCUIT BOARD   |
|                | 1         | 1         | ZZ261H8630 | P.W. Board, Power Switch<br>P.W. Board Assembly       |
| △G001          | 1         | 1         | DK18103840 | Ceramic Cap. 0.01μF 250V                              |
| △S001          | 1         | 1         | SP01010650 | Push Switch   |

|          |                     |
|----------|---------------------|
| (W01-99) | Assembly and Wiring |
| (T01-99) | Adjustment          |
| (X01-00) | Correction          |

| REF. DESIG. | Q'T |
| --- | --- |

## 10. TECHNICAL SPECIFICATIONS (Model PM340)

### AUDIO SECTION

#### POWER OUTPUT PER CHANNEL

|   |       |
|---|-------|
| DIN 4 OHMS .....                              | 55 W  |
| RMS 4 OHMS .....                              | 45 W  |
| DIN 8 OHMS .....                              | 50 W  |
| RMS 8 OHMS .....                              | 40 W  |
| TOTAL HARMONIC DISTORTION AT RMS 8 OHMS ..... | 0.05% |
| I.M. DISTORTION .....                         | 0.05% |
| DAMPING FACTOR 8 OHMS (1 kHz) .....           | 55    |

#### MM CARTRIDGE INPUT

|  |           |
|--|-----------|
| Frequency Response (RIAA) 20 Hz – 20 kHz ..... | ±0.5 dB   |
| Signal-to-Noise Ratio .....                    | 72 dB     |
| Input Impedance .....                          | 47 k ohms |
| Input Capacitance .....                        | 100 pF    |
| Input Sensitivity .....                        | 2.5 mV    |

#### AUX. INPUT

|                                  |                |
|----------------------------------|----------------|
| Input Impedance .....            | 25 k ohms      |
| Input Sensitivity .....          | 150 mV         |
| Frequency Response (±2 dB) ..... | 10 Hz – 50 kHz |
| Signal-to-Noise Ratio .....      | 92 dB          |

#### OUTPUT VOLTAGE

|                                |        |
|--------------------------------|--------|
| Tape Out (Input 7.75 mV) ..... | 417 mV |
|--------------------------------|--------|

#### OUTPUT IMPEDANCE

|                |          |
|----------------|----------|
| Tape Out ..... | 300 ohms |
|----------------|----------|

#### GENERAL

|  |                               |
|--|-------------------------------|
| Power Requirements .....   | 110/120/220/240V AC, 50/60 Hz |
| Power Consumption at Rated Output, both Channels Operating ..... | 200 W                         |
| Dimensions   |                               |
| Panel Width .....  | 416 mm                        |
| Panel Height .....   | 85 mm                         |
| Depth .....  | 225 mm                        |
| Weight   |                               |
| Unit Alone .....   | 5.0 kg                        |

## TECHNICAL SPECIFICATIONS (Model PM240)

### AUDIO SECTION

#### POWER OUTPUT PER CHANNEL

|   |       |
|---|-------|
| DIN 8 OHMS .....                              | 40 W  |
| RMS 8 OHMS .....                              | 35 W  |
| TOTAL HARMONIC DISTORTION AT RMS 8 OHMS ..... | 0.05% |
| I.M. DISTORTION .....                         | 0.05% |
| DAMPING FACTOR 8 OHMS (1 kHz) .....           | 45    |

#### MM CARTRIDGE INPUT

|  |           |
|--|-----------|
| Frequency Response (RIAA) 20 Hz – 20 kHz ..... | ±0.5 dB   |
| Signal-to-Noise Ratio .....                    | 70 dB     |
| Input Impedance .....                          | 47 k ohms |
| Input Capacitance .....                        | 100 pF    |
| Input Sensitivity .....                        | 2.5 mV    |

#### AUX. INPUT

|                                  |                |
|----------------------------------|----------------|
| Input Impedance .....            | 25 k ohms      |
| Input Sensitivity .....          | 150 mV         |
| Frequency Response (±2 dB) ..... | 10 Hz – 50 kHz |
| Signal-to-Noise Ratio .....      | 91 dB          |

#### OUTPUT VOLTAGE

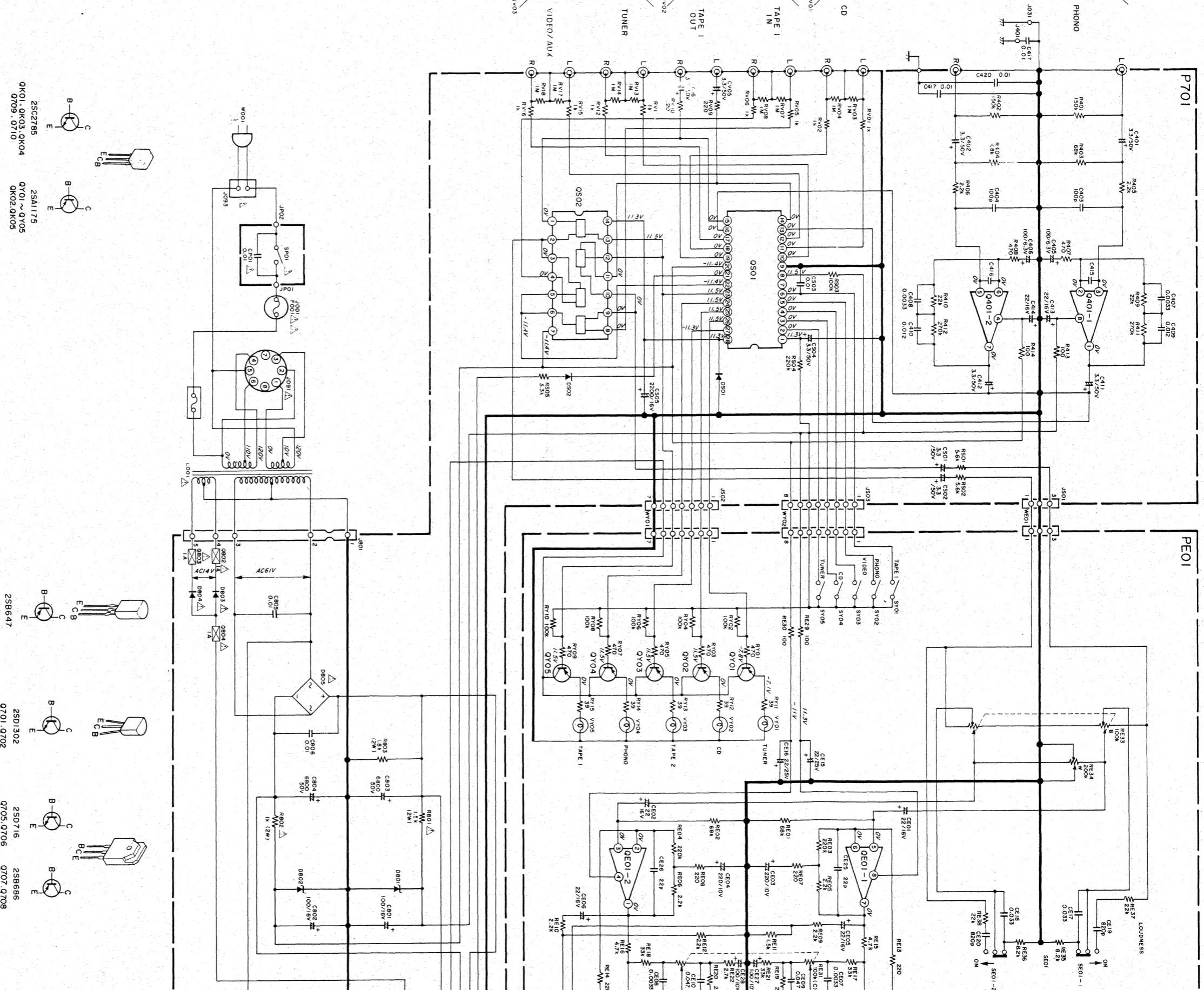
|                                |        |
|--------------------------------|--------|
| Tape Out (Input 7.75 mV) ..... | 415 mV |
|--------------------------------|--------|

#### OUTPUT IMPEDANCE

|                |          |
|----------------|----------|
| Tape Out ..... | 300 ohms |
|----------------|----------|

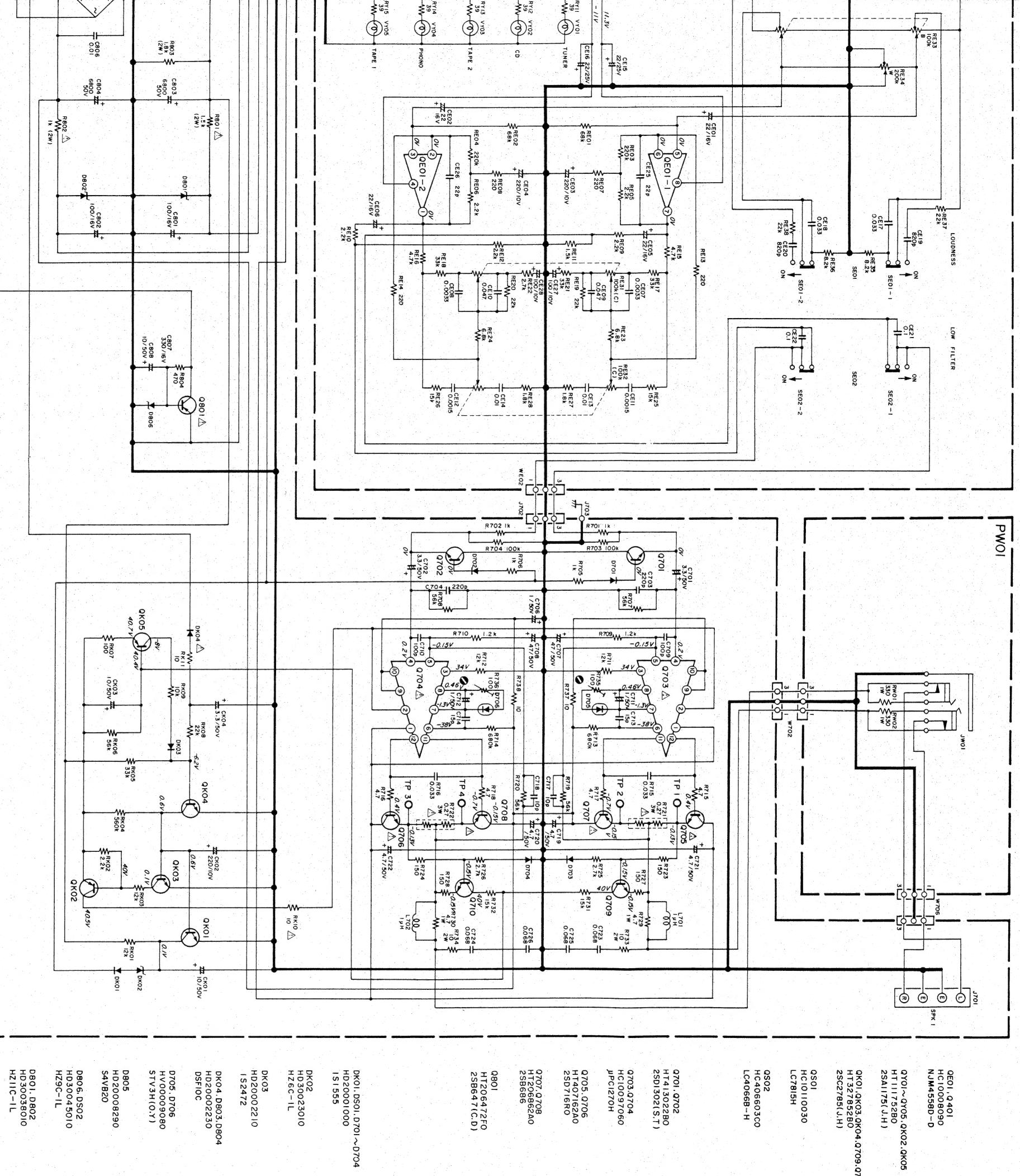
#### GENERAL

|  |                               |
|--|-------------------------------|
| Power Requirements .....   | 110/120/220/240V AC, 50/60 Hz |
| Power Consumption at Rated Output, both Channels Operating ..... | 170 W                         |
| Dimensions   |                               |
| Panel Width .....  | 416 mm                        |
| Panel Height .....   | 85 mm                         |
| Depth .....  | 225 mm                        |
| Weight   |                               |
| Unit Alone .....   | 4.9 kg                        |



**NOTE ON SAFETY:**  
Symbol  $\Delta$  Fire or electrical shock hazard. Only original parts should be used to replace any part marked with symbol  $\Delta$ . Any other component substitution (other than original type), may increase risk of fire or electrical shock hazard.

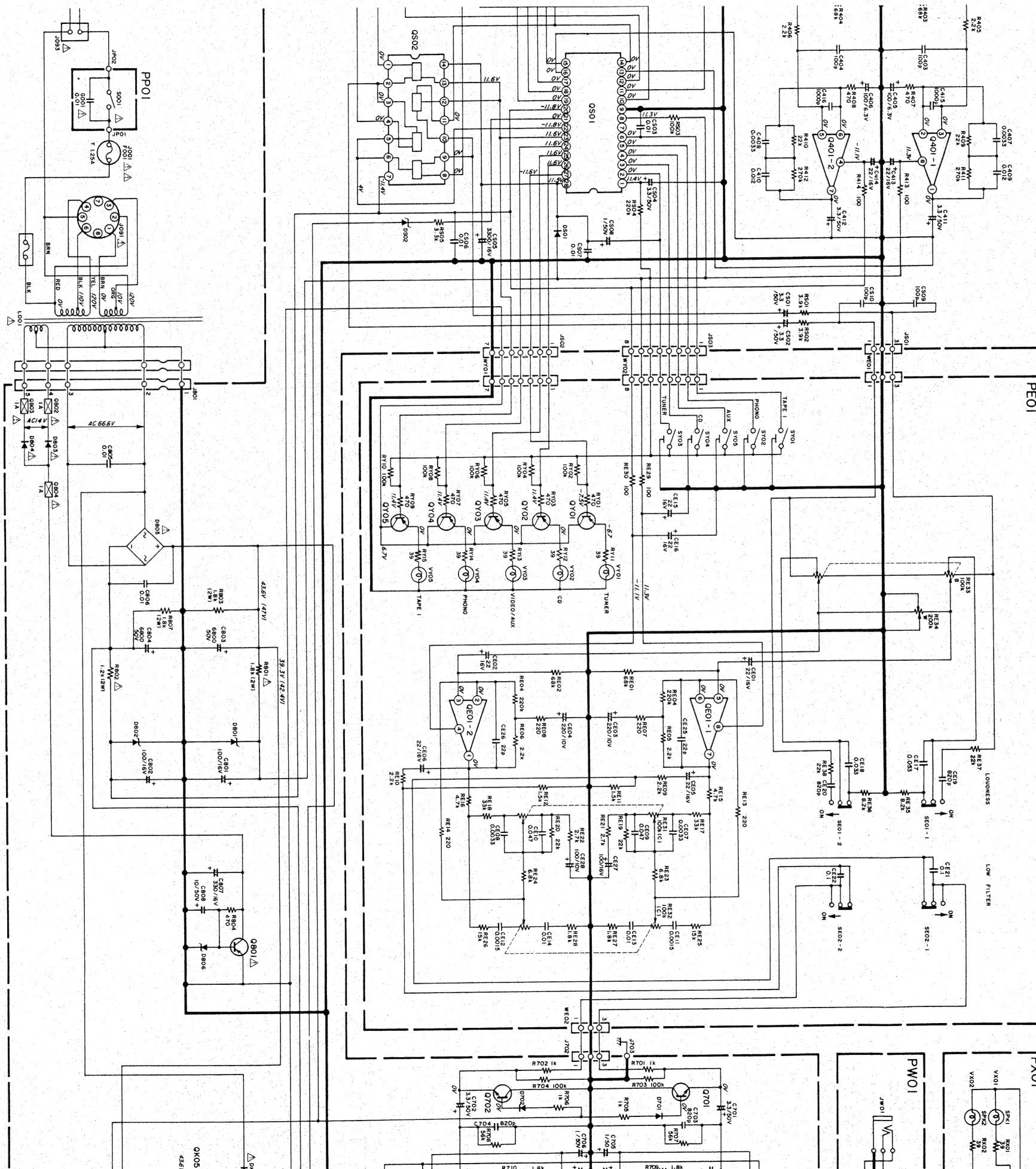
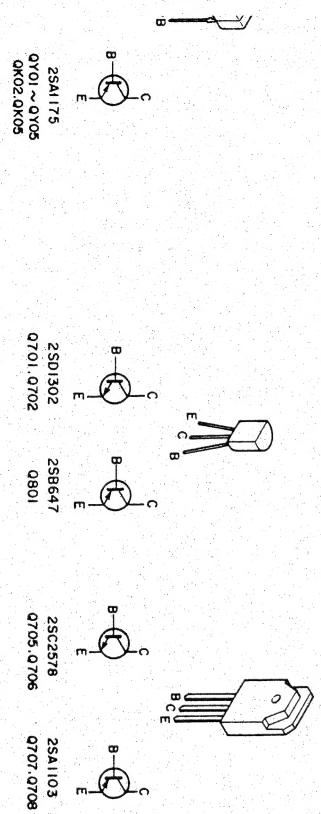
# Model PM240



#### **NOTE ON SAFETY :**

**NOTE ON SAFETY:** **Symbol ▲ Fire or electrical shock hazard. Only original parts**

should be used to replace any part marked with symbol  $\Delta$ . Any other component substitution (other than original type), may increase risk of fire or electrical shock hazard.



## **Model PM340**

